REMARKS

Claims 1-23 are all the claims presently pending in the application. Claims 4, 12, and 20 are amended to more clearly define the invention. Claims 1, 7, 17, and 23 are independent.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicant also notes that, notwithstanding any claim amendments herein or later during prosecution, Applicant's intent is to encompass equivalents of all claim elements.

Entry of this §1.116 Amendment is proper. Since the Amendments above narrow the issues for appeal and since such features and their distinctions over the prior art of record were discussed earlier, such amendments do not raise a new issue requiring a further search and/or consideration by the Examiner. As such, entry of this Amendment is believed proper and Applicant earnestly solicits entry. No new matter has been added.

Claims 1-23 stand rejected under 35 U.S.C. § 103(a) as being anticipated by the Ronning et al. reference in view of the Yamane et al. reference.

This rejection is respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

An exemplary embodiment of the claimed invention is directed to a method for searching files stored on a network. The method includes downloading a first file on the network from a server to a client, accessing time data from within the first file, and setting an accessing time to access a second file on the server based on the time data from the first file.

The time data including the actual time when the second file is scheduled to be updated.

Conventional network file search engines conduct searches for updated files on networks periodically, such as at regular intervals. One problem with these conventional systems is that these systems do not have any method for determining when a website might be scheduled to be updated. Depending on how often a website is updated, the web crawler's archive data could be very outdated. On the other hand, frequent web crawler visits to websites which are not frequently updated consume valuable computer resources.

The present invention provides a method for determining when and how often a web crawler should return to a web site. The present invention provides this advantage because the method downloads a first file on a network, accesses time data from within the first file and sets an access time to access a second file based upon the time data from within the first file, where that time data indicates when the second file is scheduled to be updated.

In an exemplary embodiment of the present invention, the method accesses a channel definition format (CDF) file which provides an indication of when a particular channel (and/or subchannel) is scheduled to be updated (see page 4, line 15 - page 5, line 2). Therefore, in this exemplary embodiment the first file is the CDF and the second file is the channel.

In this manner, the present invention provides for more efficient web crawling of a web site by crawling the site when and where it is likely the information contained therein is updated (page 6, lines 7-15).

II. THE PRIOR ART REJECTION

The Examiner alleges that the Yamane et al. reference would have been combined

with the Ronning et al. reference to form the claimed invention. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

As explained previously, one of ordinary skill in the art who was concerned with solving the problem of downloading of requested files in multiple portions as the Ronning et al. reference is concerned with solving would not have referred to the Yamane et al. reference because the Yamane et al. reference is directed to the completely different and unrelated problem of trying to predict the time of update. Thus, the references would not have been combined.

Even assuming arguendo that one of ordinary skill in the art would have been motivated to combine these references, the combination would not teach or suggest each and every element of the claimed invention.

None of the applied references teaches or suggests the features of the present invention including: 1) setting an accessing time to access a second file on a server based on time data that includes an actual time when the second file is scheduled to be updated (claims 1 and 17); 2) setting an accessing time to re-access a server based on time data that includes an actual time when a second file is scheduled to be updated (claim 7); and 3) means for setting an accessing time to access a second file on a server based on time data that includes an actual time when said second file is scheduled to be updated (claim 23).

In the Examiner's Response to Arguments section of the December 8, 2004, Office

Action, the Examiner points out that Applicant argues that the applied references do not teach or suggest "time data that includes an actual time when the second file is scheduled to be updated."

However, the Examiner alleges that this limitation was addressed in the Office Action mailed on March 5, 2004.

Contrary to the Examiner's allegation, the March 5, 2004, Office Action not only did not address this feature, this particular feature was amended AFTER the March 5, 2004, Office Action to clarify that the time data includes an actual time when the second file is scheduled to be updated. Therefore, the Examiner could not possibly have addressed this limitation in the March 5, 2004, Office Action.

Further, Applicant has again carefully reviewed March 5, 2004, Office Action and confirmed that the Examiner's allegation that "This limitation was addressed in the previous Office Action mailed on March 5, 2004" is incorrect.

The March 5, 2004, Office Action does not include any allegation at all that any of the applied references teaches or suggests "time data that includes an actual time when the second file is scheduled to be updated."

In the Response to Arguments section of the December 8, 2004, Office Action the Examiner states: "In edition (sic) the Examiner would like to direct the Applicant (sic) attention to Yamane's (sic) Figure No. 2 where the 'actual time' for the next update is clearly indicated, for example, (sic) the file or the web page identified by the URL http://www.a.co.jp is scheduled to be updated at exactly 12:00 o'clock (sic) on June 1st." (Emphasis added).

This statement evidences a clear mis-understanding and mis-characterization of the Yamane et al. reference by the Examiner.

Contrary to the Examiner's allegation, Figure 2 of the Yamane et al. reference does not teach or suggest time data that includes an actual time when the second file is scheduled to be updated."

Rather, the Yamane et al. reference very clearly explains that a "next update prediction time storage section 105 has the function of relating a link to the next update prediction time of the data item specified by the link, storing them, and outputting and updating the next update prediction time." (Emphasis added, col. 4, lines 35-39).

Further, the Yamane et al. reference very clearly explains that an "update history storage section 108 relates a link to the update history (history table) of the data item specified by the link and stores them. The update history storage section 108 has the function of adding the update history and the function of calculating the next update prediction time of each link from the update history corresponding to each link. (Emphasis added, col. 4, lines 42-48).

"Since all of the pieces of information stored in these storage sections are related through links, the next update prediction time storage section 105 and the update history storage section 108 may not have physically different storage units. Therefore, they are stored in a common storage unit to have the relationship as shown in FIG. 2." (Emphasis added, col. 4, lines 57 - 62).

"First, the next update prediction time to be outputted and updated by the next update prediction time storage section 105 is stored so as to correspond to each link. As shown in FIG. 2, four next update prediction times July 1 12:00, July 1 17:00, July 1 20:00, (sic) are stored so as to correspond to the four links."

In other words, as Applicant previously explained, the Yamane et al. reference

discloses a system that downloads data from a network based upon a prediction of when the data is to be updated. The system disclosed by the Yamane et al. reference either looks for that information within the file (i.e., the last time the file was updated) or predicts the next update time based upon the history of previous updates of the file. The system predicts the next update time, downloads the data, checks to see if the data has really been updated and, if not, it refines the prediction of the next update time (col. 8, lines 22 - col. 9, line 15).

In particular, the Yamane et al. reference very clearly explains that the update prediction times that are stored in the update prediction time storage section 105 are calculated "from the update history corresponding to each link." (Col. 4, lines 44 - 47).

This very clearly illustrates that the Yamane et al. reference does not teach or suggest an actual time for updating a file, because the Yamane et al. reference is forced to perform a calculation based upon the history of previous updates of a corresponding file in order to predict (i.e., guess, estimate, assume) when the file might be updated.

In stark contrast to the Yamane et al. reference, the present invention relies upon the actual time that the file is scheduled to be updated as specified by the server rather than relying upon some algorithm that is performed by a client that attempts to predict when the file will be updated. As noted by the Yamane et al. reference which acknowledges that the system must check to see has really been updated, the Yamane et al. reference merely attempts to predict when the file will be updated rather than relying upon the actual time that the file will be updated.

Clearly, the Examiner's citation of Figure 2, does not support the Examiner's allegation that the Yamane et al. reference teaches or suggests time data that includes an actual time when the second file is scheduled to be updated."

Rather, Figure 2 of the Yamane et al. reference merely discloses a prediction of when a file might be updated.

In the Response to Arguments section of the December 8, 2004, Office Action, the Examiner also mis-characterizes Applicant's arguments.

In particular, the Examiner alleges that "Applicant argues on Page 13, Paragraph 2, regarding claims 2, 9 and 18, that Ronning (sic) does not teach the limitations of 'update.'"

Contrary to the Examiner's allegation Page 13, Paragraph 2 of the Applicant's June 7, 2004, Amendment does not argue that the Ronning et al. reference does not teach an update. Rather, Page 13, Paragraph 2 of the Applicant's June 7, 2004, Amendment very clearly points out that:

> "Regarding claims 2, 9, and 18, the Ronning et al. reference does not teach or suggest the second file being the same as the first file. Rather, the Ronning et al. reference discloses an update button on the client. As explained above, it is the update time that is specified by the client, not the server. The update time that is specified by the client may be completely wrong and has nothing to do with when the server updates or specifies the update in a, for example, CDF or metadata file." (Emphasis added)

Therefore, the Examiner has clearly mis-characterized Applicant's argument.

Further, regarding this same point, the Examiner alleges that "Ronning (sic) discloses wherein the second file is the same as the first file" and refers to Figure 15, element number 740 in an attempt to support the Examiner's allegation.

However, contrary to the Examiner's allegation, element number 740 of Figure 15 in the Ronning et al. reference does not support the Examiner's allegation that the Ronning et al.

reference discloses that the second file is the same as the first file.

Rather, as explained previously by the Applicant, the Ronning et al. reference discloses the ability to instruct the agent to periodically search for updates. Specifically, the Ronning et al. reference explains that "From the general setting screen 738, the agent receives and saves setting as entered by the user, including schedule information for finding updates (step 556). . . . Selection of a section 740 permits the user to instruct the agent to search for updates on a periodic basis." ([0072]).

Clearly, the Examiner's reference to Figure 15, element number 740 of the Ronning et al. reference does not support the Examiner's allegation that the Ronning et al. reference teaches or suggests that the second file is the same as the first file.

As explained before, the system disclosed by the Ronning et al. reference is an agent that sits on the end user's machine and periodically checks for updates based upon a schedule that is specified by the end user. This is inefficient since the scheduling has no knowledge of when the data is updated by the server and relies upon the user's intelligence to predict when to download. This can potentially cause heavy network traffic and unnecessary data downloads.

The Ronning et al. reference discloses a system where a file can be downloaded from a web server in parts (chunks or segments) in an integral way. In stark contrast, the present invention is directed to crawling (and downloading) a file or a web document "smartly" based upon what the web server says about when and how the document will be updated. Thus, the present invention is orthogonal to the system disclosed by the Ronning et al. reference.

Further, the Ronning et al. reference discloses a system that provides for automatic scheduling of downloads based upon input from the user, where the user specifies how and

when to schedule the file to be downloaded next ("upon request by a user" [0003]; "permit the user to enter schedule information to control downloading of files and searching for updates to files" [0005]; "as entered by the user, including schedule information . . . permits the user to instruct the agent to search for updates on a periodic basis" [0072]; "permits the user to specify automatic downloads . . . permits the user to instruct the agent" [0073]; "programmed or instructed by the user" [0076]; "a user may enter a date in date section 781 and a time in time section 782 in order to schedule a download" [0081]; et seq.).

In stark contrast, the present invention schedules the next download based upon knowing the time when the file will be updated.

These systems are quite different and have different purposes of invention. The system disclosed by the Ronning et al. reference is an agent that sits on the end user's machine and periodically checks for updates based upon a schedule that is specified by the end user. This is inefficient since the scheduling has no knowledge of when the data is updated by the server and relies upon the user's intelligence to predict when to download. This can potentially cause heavy network traffic and unnecessary data downloads.

In summary, the Ronning et al. reference does not teach or suggest setting an time to access a file based upon a time of next scheduled update that was downloaded from another file. Rather, the user sets the next access time.

The Yamane et al. reference does not remedy the deficiencies of the Ronning et al. reference.

The Yamane et al. reference discloses a system that downloads data from a network by predicting when the data is to be updated. The system disclosed by the Yamane et al. reference either looks for that information within the file (i.e., the last time the file was

updated) or predicts the next update time based upon the history of previous updates of the file. The system predicts the next update time, downloads the data, checks to see if the data has really been updated and, if not, it refines the prediction of the next update time (col. 8, lines 22 - col. 9, line 15).

In stark contrast, the present invention relies upon the actual time that the file is scheduled to be updated as specified by the server rather than relying upon some algorithm that is performed by a client that attempts to predict when the file will be updated. As noted by the Yamane et al. reference which acknowledges that the system must check to see has really been updated, the Yamane et al. reference merely attempts to predict when the file will be updated rather than relying upon the actual time that the file will be updated.

It is not possible to combine the teachings of the Ronning et al. reference with the Yamane et al. reference to arrive at the present invention. Given today's popularity of Web logs and RSS technology, the present invention is important to the present state of technology. Neither of the Ronning et al. reference nor the Yamane et al. reference combined together can solve the problems of the Web log scenario where the update information is kept on a separate metadata file as channel information on the server.

The Examiner is respectfully requested to withdraw the rejection of claims 1-23.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-23, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 09-0441.

Respectfully Submitted,

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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that I am filing this Amendment by facsimile with the United States Patent and Trademark Office to Examiner Haythim J. Alaubaidi, Group Art Unit 2161 at fax number (703) 872-9306 this 8th day of February, 2005.

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